

IN THE CLAIMS

Claim 8 (currently amended) A microphone array apparatus comprising:

- a microphone array including microphones;
- a signal estimator which estimates positions of estimated microphones in accordance with intervals at which the microphones are arranged by using ~~the~~ output signals of the microphones and a velocity of sound and which outputs the output signals of the ~~estimated~~ microphones estimated to be at the estimated positions together with the output signals of the microphones forming the microphone array; and
- a synchronous adder which ~~pulls~~ aligns phases of the output signals of the microphones and the estimated microphones and then adds the output signals.

Claim 9 (currently amended) The microphone array apparatus as claimed in claim 8, further comprising a reference microphone located on an imaginary line connecting the microphone forming the microphone array and arranged at intervals at which the microphones forming the microphone array are arranged,

wherein the signal estimator ~~which~~ corrects the estimated positions of the estimated microphones and the output signals thereof on the basis of the output signals of the microphones forming the microphone array.

Claim 10 (original) The microphone array apparatus as claimed in claim 9, further comprising an estimation coefficient decision unit weights an error signal which corresponds to a

difference between the output signal of the reference microphone and the output signals of the signal estimator in accordance with an acoustic sense characteristic so that the signal estimator performs a signal estimation operation on a band having a comparatively high acoustic sense with a comparatively high precision.

Claim 11 (currently amended) The microphone array apparatus as claimed in claim 8, wherein;

given angles are defined which indicate directions of a sound source with respect to the microphones forming the microphone array;

a plurality of the signal estimator includes parts which estimators each associated with one of the given angles are ~~respectively provided to the given angles;~~

a plurality of the synchronous adder includes parts which adders each associated with one of the given angles are ~~respectively provided to the given angles;~~ and

the microphone array apparatus further comprises a sound source position detector which outputs information concerning the position of a sound source based on a maximum value among the output signals of the plurality of the synchronous adders ~~parts of the synchronous adder.~~